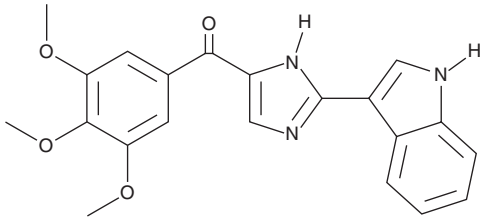
PRODUCT INFORMATION

Sabizabulin

Item No. 38525

CAS Registry No.: 1332881-26-1
Formal Name: [2-(1H-indol-3-yl)-1H-imidazol-5-yl] (3,4,5-trimethoxyphenyl)-methanone
Synonyms: ABI-231, VERU-111
MF: $C_{21}H_{19}N_3O_4$
FW: 377.4
Purity: ≥98%
UV/Vis.: λ_{max}: 222, 290, 358 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Sabizabulin is supplied as a solid. A stock solution may be made by dissolving the sabizabulin in the solvent of choice, which should be purged with an inert gas. Sabizabulin is soluble in DMSO.

Description

Sabizabulin is an inhibitor of tubulin polymerization.[1] It inhibits bovine tubulin polymerization in a cell-free assay when used at concentrations of 5 and 10 µM. Sabizabulin inhibits the growth of A375 and WM164 melanoma, LNCaP, PC3, and DU145 prostate cancer cells, as well as paclitaxel-resistant PC3 cells (IC_{50}s = 3.2, 5.3, 2.8, 3.7, 3.9, and 3.7 nM, respectively).[1] It reduces the migration and invasion of MDA-MB-231 and MDA-MB-468 breast cancer cells when used at a concentration of 8 nM, as well as decreases the migration rate in wound-healing assays using the same cells at 16 nM.[2] Sabizabulin (50 nM) induces cell cycle arrest at the G_2/M phase in MDA-MB-231 cells and the G_2 phase in MDA-MB-468 cells, as well as apoptosis in these same cells. It decreases tumor volume, tumor weight, and angiogenesis, as well as increases tumor necrosis, without affecting body weight, in an MDA-MB-231 mouse xenograft model when administered at doses of 5, 10, and 12.5 mg/kg. Sabizabulin (10 mg/kg) reduces the number of lung, liver, and kidney metastases in an MDA-MB-231 mouse xenograft model of metastasis.

References

1. Chen, J., Ahn, S., Wang, J., *et al.* Discovery of novel 2-aryl-4-benzoyl-imidazole (ABI-III) analogues targeting tubulin polymerization as antiproliferative agents. *J. Med. Chem.* **55(16)**, 7285-7289 (2012).
2. Deng, S., Krutilina, R.I., Wang, Q., *et al.* An orally available tubulin inhibitor, VERU-111, suppresses triple-negative breast cancer tumor growth and metastasis and bypasses taxane resistance. *Mol. Cancer Ther.* **19(2)**, 348-363 (2020).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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